

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-6 (canceled)

7. (Previously presented) An injection stretch blow molding apparatus, comprising:

- 2 a preform molding station for injection molding preforms;
 a blow molding station for stretch blow molding the preforms into
4 containers, and;
 a transfer station for transferring the preforms from the preform molding
6 station to the blow molding station,
 wherein the preform molding station comprises an injection molding
8 section for simultaneously injection molding a first number N of the preforms at a
 first pitch, wherein N is greater than or equal to two,

10 wherein the blow molding station comprises:
 a circulatory carrier for intermittently circulatorily carrying the preforms
12 along a carrying path at a second pitch larger than the first pitch, the preforms
 being transferred from the preform molding station through the transfer station;
14 a heating section for heating the preforms being transferred along the
 carrying path; and
16 a blow molding section for simultaneously blow molding n of the
 containers from a second number n of the preforms, wherein n is greater than or
18 equal to one and less than N ,
 and wherein the transfer station comprises:
20 a receiving mechanism for simultaneously receiving the N preforms from
 the preform molding station with the N preforms at the first pitch,
22 a preform handling mechanism to move the preforms from the receiving
 mechanism to an intermediate location, and
24 a pitch changing and transfer mechanism for changing an array pitch of
 the preforms from the first pitch to the second pitch and also transferring n of the
26 preforms from the intermediate location to the circulatory carrier in the blow
 molding station.

8. (Previously presented) The injection stretch blow molding apparatus as defined in claim

2 7, wherein each preform has a neck and the pitch changing and transfer
 mechanism includes two neck supporting mechanisms each of which supports
4 the neck of the preform

9. (Previously presented) The injection stretch blow molding apparatus as defined in claim

2 7, wherein the pitch changing and transfer mechanism comprises a mechanism for
moving the n preforms along nonparallel paths with respect to each other.

10. (Previously presented) The injection stretch blow molding apparatus as defined in claim

2 7, wherein n equals two, wherein there are at least four adjacent preforms at the
first pitch in the preform handling mechanism in the transfer station, and the pitch
4 changing and transfer mechanism moves two nonadjacent preforms from the
intermediate location to the circulatory carrier in the blow molding station.

11. (Currently amended) The injection stretch blow molding apparatus provided on a

2 single machine bed, comprising:

a preform molding station for simultaneously injection molding N preforms at a
4 first pitch;

a blow molding station for simultaneously stretch blow molding n of the preforms
6 at a second pitch into bottles, wherein N is an integer multiple of n and is greater than n ,
and the second pitch is greater than the first pitch;

8 a transfer station for transferring the preforms from the preform molding station to
the blow station; and

10 a single machine bed on which the preform molding, blow molding and transfer
stations are provided,

12 wherein the blow molding station comprises:

a receiving section for receiving at least one preform from the preform molding

14 station through the transfer station;
a circulatory carrier for intermittently circulatorily carrying the preforms along a
16 carrying path, the preforms being received from the receiving section;
a heating section for heating the preforms carried along the carrying path;
18 a blow molding section for blow molding the ~~at least one~~ preforms carried along
the carrying path into the ~~at least one~~ bottles; and
20 a bottle ejecting section for ejecting the at least one bottle outside the apparatus,
and wherein the blow molding section is provided at an end side of the
22 machine bed opposite the receiving section.

12. (Previously presented) The injection stretch blow molding apparatus as defined in claim
2 11, wherein the machine bed is substantially rectangular, and wherein the preform
molding, transfer and blow molding stations are substantially linearly aligned on
4 the machine bed.

13. (Previously presented) The injection stretch blow molding apparatus as defined in claim
2 11, wherein the transfer station comprises:
a receiving mechanism for simultaneously receiving the N preforms from the
4 preform molding station with the N preforms at the first pitch;
a pitch changing and transfer mechanism for changing an array pitch of the
6 preforms from the first pitch to the second pitch while transferring n of the preforms to
the circulatory carrier in the blow molding station, and
8 a preform handling mechanism to move the preforms from the receiving

mechanism to the pitch changing and transfer mechanism.

14. (Previously presented) The injection stretch blow molding apparatus as defined in claim
2 11, wherein each preform has a neck and the pitch changing and transfer
mechanism includes two neck supporting mechanisms each of which supports the
4 neck of the preform.
15. (Previously presented) The injection stretch blow molding apparatus as defined in claim
2 11, wherein the pitch changing and transfer mechanism comprises an advancing
mechanism to move the n preforms along nonparallel paths with respect to each
4 other.
16. (Previously presented) The injection stretch blow molding apparatus as defined in claim
2 11, wherein n equals two, wherein there are at least four adjacent preforms at the
first pitch in the preform handling mechanism in the transfer station, and the pitch
4 changing and transfer mechanism moves two nonadjacent preforms from the
preform handling mechanism to the circulatory carrier in the blow molding
6 station.
17. (Previously presented) The injection stretch blow molding apparatus comprising:
2 an injection molding station including injection cores and neck cavity molds for
simultaneously injection molding a first number N preforms where N is greater than one
4 and the preforms are in an upright state with an open neck portion facing upward;

a blow molding station for blow molding a second number n preforms where n is less than N into at least one container in an inverted state; and

a transfer station which turns the preforms upside-down and simultaneously transfers n of the preforms to the blow molding station in an inverted state;

wherein the injection molding station comprises an ejection mechanism for simultaneously ejecting the N preforms from the injection cores and the neck cavity molds;

and wherein the transfer station comprises:

a holding mechanism for holding at least the N preforms ejected from the injection cores and the neck cavity molds; and

an inverting mechanism for rotating the holding mechanism about a horizontal axis, thereby the N preforms are turned from the upright state to the inverted state.

18. (Previously presented) The injection stretch blow molding apparatus as defined in claim

17, wherein:

N is at least two and the N preforms are each disposed at a first pitch; and

the blow molding station comprises a circulatory carrier for intermittently circulatorily carrying at least N preforms along a carrying path each disposed at a second pitch larger than the first pitch;

and wherein the transfer station further comprises:

a pitch changing mechanism for changing an array pitch of the N preforms from the first pitch to the second pitch.

19. (Previously presented) The injection stretch blow molding apparatus of claim 18,

2 wherein the holding mechanism comprises a first and a second pair of gripping
members.

20. (Previously presented) The injection stretch blow molding apparatus of claim 19,

2 wherein the holding mechanism further comprises a first mounting mechanism for
mounting the first pair of gripping members, and a second mounting mechanism
4 for mounting the second pair of gripping members.

21. (Previously presented) The injection stretch blow molding apparatus of claim 20,

2 wherein the pitch changing mechanism comprises a third mounting mechanism
for movably mounting the first and second mounting mechanisms to move
4 relative to each other to change the pitch.

22. (Previously presented) The injection stretch blow molding apparatus of claim 18,

2 wherein the pitch changing mechanism comprises a movement mechanism for
moving the first and second pairs of gripping members relative to each other to
4 change the pitch.

23. (Previously presented) The injection stretch blow molding apparatus of claim 17,

2 wherein the pitch changing mechanism changes the pitch after the preforms are
received by the receiving mechanism and the inverting mechanism inverts the
4 preforms during transfer of the preforms from the transfer station to the blow

molding station.

24. (Previously presented) The injection stretch blow molding device of claim 22,

2 wherein the pitch changing mechanism changes the pitch from the first pitch to
the second pitch by moving the first and second pairs of gripping members further
4 away from each other to a distance equal to a multiple of the first pitch and closer
to each other to a distance equal to the second pitch.

25. (Previously presented) The injection stretch blow molding apparatus of claim 7,

2 wherein the receiving mechanism comprises a holder for receiving the preforms at
the first pitch and in an upright state with an open mouth up.

26. (Previously presented) The injection stretch blow molding apparatus of claim 7,

2 wherein the preform handling mechanism comprises an inversion mechanism for
inverting the preforms from an upright state with an open mouth facing up to an
4 upside down state with the mouth facing down, the pitch changing mechanism
changes the pitch after the preforms are received by the receiving mechanism, and
6 the inversion mechanism inverts the preforms during the transfer of the preforms
from the transfer station to the blow molding station.

27. (Previously presented) The injection stretch blow molding apparatus of claim 7,

2 wherein the pitch changing mechanism includes a holding mechanism for holding
a neck of the preforms, and the holding mechanism comprises a first and a second

4 pair of gripping members.

28. (Previously presented) The injection stretch blow molding apparatus of claim 27,

2 wherein the holding mechanism further comprises a first mounting mechanism for
mounting the first pair of gripping members, and a second mounting mechanism
4 for mounting the second pair of gripping members.

29. (Previously presented) The injection stretch blow molding apparatus of claim 28,

2 wherein the pitch changing mechanism comprises a third mounting mechanism
for movably mounting the first and second mounting mechanisms to move them
4 relative to each other to change the pitch.

30. (Previously presented) The injection stretch blow molding apparatus of claim 27,

2 wherein the pitch changing mechanism comprises a movement mechanism for
moving the first and second pairs of gripping members relative to each other to
4 change the pitch.

31. (Previously presented) The injection stretch blow molding device of claim 30,

2 wherein the pitch changing mechanism changes the pitch from the first pitch to
the second pitch by moving the first and second pairs of gripping members further
4 away from each other to a distance equal to a multiple of the first pitch and closer
to each other to a distance equal to the second pitch.

32. (Previously presented) The injection stretch blow molding apparatus, comprising:

- 2 a preform molding station for injection molding preforms;
- a blow molding station for stretch blow molding the preforms into containers; and
- 4 a transfer station for transferring the preforms from the preform molding station to
 the blow molding station,
- 6 wherein the preform molding station comprises an injection molding section for
 simultaneously injection molding a first number N of the preforms at a first pitch,
- 8 where N is greater than or equal to two,
- wherein the blow molding station comprises:
- 10 a circulatory carrier for intermittently circulatorily carrying the preforms along a
 carrying path at a second pitch larger than the first pitch, the preforms being
- 12 transferred from the preform molding station through the transfer station;
- a heating section for heating the preforms being transferred along the carrying
- 14 path; and
- a blow molding section for simultaneously blow molding n of the containers from
- 16 a second number n of the preforms, where n is greater than or equal to one,
- and wherein the transfer station comprises:
- 18 a receiving mechanism for receiving the preforms released from the preform
 molding station while at the first pitch,
- 20 a preform handling mechanism for moving the preforms while in the first pitch
 from the receiving mechanism to an intermediate position between the receiving
- 22 mechanism and the blow molding section, and
- a pitch changing mechanism for changing an array pitch of the preforms

24 from the first pitch to the second pitch.

33. (Previously presented) The injection stretch blow molding apparatus of claim 32,
2 wherein each preform has a neck and the pitch changing mechanism
includes two neck supporting mechanisms each of which supports the neck of the
4 preform.

34. (Previously presented) The injection stretch blow molding apparatus of claim 32,
2 wherein the pitch changing mechanism changes the array pitch while the preforms
are supported by the neck supporting mechanisms.

35. (Currently amended) An injection stretch blow molding apparatus provided on a
2 machine bed, comprising:

a preform molding station for injection molding preforms;

4 a blow molding station for stretch blow molding
molding the preforms into bottles;

6 a transfer station for transferring the preforms from the
preform molding station to the blow molding station; and

8 a machine bed on which the preform molding, blow
molding and transfer stations are provided,

10 wherein the blow molding station comprises:

a receiving section for receiving at least one preform from
12 the preform molding station through the transfer station;

a circulatory carrier for intermittently circulatorily
14 carrying the preforms along a carrying path, the preforms being received
from the receiving section;
16 a heating section for heating the preforms carried along
the carrying path;
18 a blow molding section for blow molding the at least one
preform carried along the carrying path into the at least one bottle; and
20 a bottle ejecting section for ejecting the at least one bottle
outside the apparatus,
22 and wherein the machine bed is substantially rectangular,
and wherein the preform molding, transfer and blow molding stations are
24 substantially linearly aligned on the machine bed.

36. (Previously presented) The injection stretch blow molding apparatus of claim 35
2 wherein the perform molding station comprises an injection molding
section and a perform ejecting section,
4 and wherein the injection molding section, the perform ejecting
section, the transfer station and the blow molding station are substantially
6 aligned on the machine bed.

37. (Previously presented) The injection stretch blow molding apparatus of claim 36

2 wherein the perform molding station comprises:

an injecting apparatus;

4 an injection molding section facing the injecting apparatus; and

a perform ejecting section facing the injection molding section.

38. (Previously presented) The injection stretch blow molding apparatus of claim 35

2 wherein the preform molding station comprises a rotary disc.

39. (Previously presented) The injection stretch blow molding apparatus of claim 38

2 wherein the rotary disc comprises a first position and a second position.

40. (Previously presented) The injection stretch blow molding apparatus of claim 39

2 wherein the first and second positions lie approximately 180° with respect
to the disc in relation to one another.

41. (Previously presented) The injection stretch blow molding apparatus of claim 39

2 wherein the molded preforms are moved on the rotary disc from the first
position after an injection cycle to the second position to prepare for a
4 subsequent injection cycle.

42. (Previously presented) The injection stretch blow molding station of claim 39

2 wherein preforms in the second position are transferred to the at least one
heating section and are heated prior to being transferred to the blow

4 molding station.

43. (Previously presented) The injection stretch blow molding station of claim 42
2 wherein the preforms are rotated while disposed in the heating section.

44. (Previously presented) An injection stretch blow molding apparatus provided on a
2 machine bed comprising:

a preform molding station for injection molding at least one

4 preform;

a blow molding station for stretch blow molding the

6 preforms into bottles;

a transfer station for transferring the preforms from the

8 preform molding station to the blow molding station; and

a linearly-aligned concatenated machine bed on which the

10 preform molding, blow molding and transfer stations are provided.

wherein the blow molding station comprises:

12 a receiving section for receiving at least one preform from

the preform molding station through the transfer station;

14 a circulatory carrier for intermittently circulatorily

carrying the preforms along a carrying path, the preforms being received

16 from the receiving section;

a heating section for heating the preforms carried along

18 the carrying path;

a blow molding section for blow molding the at least one

20 preform carried along the carrying path into the at least one bottle; and

- 22 a bottle transfer section for transferring the at least one
bottle from the blow molding section,
- 24 and wherein the machine bed is substantially rectangular,
and wherein the preform molding, transfer, and blow molding stations
are substantially linearly aligned on the machine bed.